## Spartina pectinata - Carex spp. Herbaceous Vegetation

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| COMMON NAME | Prairie Cordgrass - Sedge species Herbaceous Vegetation |
| SYNONYM | Prairie Cordgrass - Sedge Wet Meadow |
| PHYSIOGNOMIC CLASS | Herbaceous Vegetation (V) |
| PHYSIOGNOMIC SUBCLASS | Perennial graminoid vegetation (V.A) |
| PHYSIOGNOMIC GROUP | Temperate or subpolar grassland (V.A.5) |
| PHYSIOGNOMIC SUBGROUP | Natural/Semi-natural (V.A.5.N) |
| FORMATION | Temporarily flooded temperate or subpolar grassland (V.A.5.N.j) |
| ALLIANCE | SPARTINA PECTINATA TEMPORARILY FLOODED HERBACEOUS ALLIANCE |

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Palustrine

RANGE

***Badlands National Park***

The prairie cordgrass wetland is rare within Badlands NP, restricted to the margins of linear wetlands with a perennial hydrologic regime. A good example is Kinney Creek at the northern edge of the North Unit.

***Globally***

This type is found in the northwestern Great Plains in eastern Montana and western North and South Dakota.

ENVIRONMENTAL DESCRIPTION

***Badlands National Park***

Prairie cordgrass wetland stands occur in drainage bottoms, along perennial stream courses, forming a patchy mosaic with other wetland species.

***Globally***

At Wind Cave NP in South Dakota, stands occur in drainage bottoms where the soil is wet for at least part of the growing season (H. Marriot personal communication 1999). At Theodore Roosevelt and Badlands National Parks, stands occur in poorly drained depressions within floodplains of major rivers.

MOST ABUNDANT SPECIES

***Badlands National Park***

| Stratum | Species |
|---|---|
| Herbaceous | *Scirpus americanus*, *Carex* spp., *Spartina pectinata* |

***Globally***

| Stratum | Species |
|---|---|
| Graminoid | *Spartina pectinata* |

CHARACTERISTIC SPECIES

***Badlands National Park***

*Spartina pectinata*, *Carex* spp., *Scirpus americanus*, *Eleocharis palustris*

***Globally***

*Spartina pectinata*

OTHER NOTABLE SPECIES

***Globally***

| Stratum | Species |
|---|---|
| Graminoid | *Carex nebrascensis, Hordeum jubatum* |

VEGETATION DESCRIPTION

***Badlands National Park***

Prairie cordgrass stands within Badlands NP are small, but dense. Aerial cover of the entire herbaceous layer is typically estimated at 75-100%. Prairie cordgrass (*Spartina pectinata*) is the dominant species. The stands occupy moist soils and occur adjacent to spikerush (*Eleocharis palustris*), water smartweed (*Polygonum amphibium*), cattails (*Typha angustifolia*, *Typha latifolia*), and bulrush (*Scirpus americanus* (= *Scirpus pungens*)) stands, these latter stands occupying saturated to inundated soils. Adjacent uplands are typically vegetated by western wheatgrass (*Pascopyrum smithii*) grasslands.

***Globally***

At Wind Cave NP in South Dakota, this type has dense herbaceous cover, greater than 75 percent. Species dominance is patchy within stands, with various graminoids locally abundant, often to the exclusion of other species. In the single sampled stand, *Spartina pectinata, Carex nebrascensis*, and *Eleocharis palustris* were locally dominant. *Epilobium ciliatum* was common in shallow water (H. Marriott pers. comm. 1999). At Theodore Roosevelt National Park in North Dakota *Spartina pectinata* is the dominant species. Species richness is generally low. *Hordeum jubatum* and *Pascopyrum smithii* are the most prominent

secondary species (J. Butler personal communication 1999). At Badlands National Park in South Dakota, Prairie cordgrass stands are small, but dense. Aerial cover of the entire herbaceous layer is typically estimated at 75-100%. *Spartina pectinata* is the dominant species. The stands occupy moist soils and occur adjacent to spikerush *Eleocharis palustris*, *Polygonum amphibium*, *Typha angustifolia*, *Typha latifolia,* and *Scirpus americanus* (= *Scirpus pungens*) stands, these latter stands occupying saturated to inundated soils. Adjacent uplands are typically vegetated by *Pascopyrum smithii*.

CONSERVATION RANK G3?. This type has a relatively restricted distribution, and occurs in somewhat specialized wetland habitats in an arid climate. In addition, many such wetland sites are subject to heavy grazing pressure by cattle, who favor these moist locations. No element occurrences have been documented for this type, but at least several stands occur within three National Parks in the western Dakotas.

DATABASE CODE CEGL001477

MAP UNITS Prairie cordgrass stands are one type included in Map Class 14 (Emergent Wetlands).

SIMILAR ASSOCIATIONS

*Spartina pectinata* - *Calamagrostis stricta* - *Carex* spp. Herbaceous Vegetation (This is the northern tallgrass region equivalent of 1477.)

*Spartina pectinata* - *Scirpus pungens* Herbaceous Vegetation (This association may simply need to be split between a *Scirpus pungens* association and a *Spartina pectinata* association.)

COMMENTS

***Badlands National Park***

Prairie cordgrass stands or patches only occur along perennial flowing waters of slow-moving creeks in Badlands NP. Outside the Park, they are also observed along irrigation and water collection ditches.

***Globally***

Sites may occasionally flood from rivers or ponding up of depressions.

REFERENCES

Culwell, L.D. and K.L. Scow. 1982. Terrestrial vegetation inventory: Dominy Project Area, Custer County, Montana 1979-1980. Unpublished technical report for Western Energy Company by Westech, Helena, Montana. 144 pp. + 15 pp. Appendix.